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FOR

HAIR BRUSH

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HAIR BRUSH

FIELD

[0001] The embodiments disclosed herein relate generally to hair styling, and more particularly to a hair brush.

BACKGROUND

[0002] There are numerous devices available with which a person can style hair. Many of these devices employ heat and/or elongate members (e.g., bristles on a brush or teeth on a comb) to arrange, straighten, curl, or crimp hair. However, some of these devices suffer from various drawbacks.

[0003] For example, some previously-known devices that employ heat tend to disperse heat in an uneven manner over a portion of hair being styled. Uneven heating may yield an undesirable effect when curling or straightening the hair. Moreover, various devices are only capable of styling the outermost portion of a person's hair. Thus, a person with a large amount of thick hair may have difficulty styling all of their hair. Furthermore, various devices cannot remove free radicals from the hair during styling. As is known in the art, free radicals can leave hair with a dull, damaged appearance.

DESCRIPTION OF THE DRAWINGS

[0004] Various embodiments are illustrated by way of example and not by way of limitation in the figures of the accompanying drawings in which like references indicate similar elements. It should be noted that references to "an," "one," "the," "other," "alternative," or "various" embodiments in this disclosure are not necessarily to the same embodiment, and such references mean at least one.

[0005] **Figure 1** is a perspective view of one embodiment of a hair brush in an open position.

[0006] **Figure 2** is a perspective view of the hair brush of **Figure 1** in a closed position.

[0007] **Figure 3** is a side view of the hair brush of **Figure 2** in a closed position.

[0008] **Figure 4** is a cross-sectional view of the first brush head of **Figure 1**, taken along line 4-4.

DETAILED DESCRIPTION

[0009] In the following description, for the purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the various embodiments. It will be apparent to one skilled in the art that the embodiments may be practiced without some of these specific details. In other instances, certain structures and devices are omitted or simplified in order to avoid obscuring the details of the various embodiments.

[0010] The following description and the accompanying drawings provide examples for the purposes of illustration. However, these examples should not be construed in a limiting sense as they are not intended to provide an exhaustive list of all possible implementations.

[0011] Referring now to **Figure 1**, one embodiment of hair brush 10 is shown. Hair brush 10 includes first brush head 12 that includes an elongate body (e.g., 8 to 10 inches in length) made of generally durable material such as plastic. Hair brush 10 also includes second brush head 14 of similar material and dimensions. In the embodiment shown, one end of first brush head 12 is pivotally connected by pin 16 to one end of second brush head 14. However, other suitable connecting mechanisms may be used. Moreover, the brush heads may be connected to one another at locations other than at their respective ends.

[0012] Although not shown in the figures, a resilient member (e.g., spring) may be used to bias first brush head 12 and second brush head 14 in either an open position (**Figure 1**) or a closed position (**Figure 2**).

[0013] First brush head 12 includes a plurality of bristles 18 that extend from surface 13 of first brush head 12. In various embodiments, bristles 18 may be comprised of any natural or synthetic material. For example, bristles 18 may be a natural material such as boar hair. In one embodiment, a bristle may have a diameter of approximately 0.5 mm. The bristles may be affixed (e.g., glued or otherwise secured) to first brush head 12 in groups (e.g., bristle groups) and extend perpendicularly from surface 13 approximately 7 to 9 mm or more.

[0014] Regardless of their composition, bristles 18 may be placed in any configuration on first brush head 12 that is suitable for styling hair. In the embodiment shown, bristles 18 are placed in bristle groups in a grid configuration on one side of first brush head 12 and extending inward toward second brush head 14. However, bristles 18 may be disposed on any surface of first brush head 12 and extend in any direction from first brush head 12.

[0015] In addition, guide pin 22 may be disposed within one or more bristle groups. In the embodiment shown, each bristle group include a guide pin that extends farther from first brush head 12 than bristles 18. In one embodiment, a group of bristles extends approximately 7 to 9 mm from surface 13 (e.g., or surface 15 of second brush head 14), and guide pin 22 may extend 10 to 12 mm or more from surface 13. By extending farther than bristles 18, guide pin 22 can effectively guide bristles 18 deeper into the hair than a brush using bristles alone.

[0016] Although one guide pin 22 is shown per bristle group, various embodiments may include multiple guide pins per bristle group or may have fewer than one guide pin per bristle group. In alternative embodiments, guide pins 22 may be disposed apart from the bristle groups.

[0017] Guide pin 22 may be comprised of a synthetic material (e.g., nylon). Guide pin 22, in one embodiment, has a dimension similar to a dimension of a single bristle 18 (e.g., 7 to 9 mm from surface 13). In various embodiments, guide pin 22 may be capable of inactivating and/or removing free radicals from the hair during styling. For example, guide pin 22 may be coated with ions (e.g., negative ions) such that, during use, guide pin 22 is capable of inactivating and/or removing free radicals from the hair being styled. One advantage of inactivating and/or removing free radicals is that the hair is left with a clean, lustrous shine.

[0018] Similar to first brush head 12, second brush head 14 includes a plurality of bristles 20. Bristles 20 are disposed in bristle groups in a grid pattern that extend from second brush head 14 toward first brush head 12. However, any suitable placement and configuration of bristles 20 or bristle groups may be used in order to effectively style hair.

[0019] In the embodiment shown, second brush head 14 includes guide pins 22 disposed within the bristle groups of second brush head 14. Guide pins 22 may extend farther from second brush head 14 than bristles 20. As described above, the number, placement, and configuration of guide pins 22 on second brush head 14 may vary.

[0020] Various configurations of bristles 18 of first brush head 12 and bristles 20 of second brush head 14 may be used in a cooperative manner in order to style hair, regardless of whether hair brush 10 is operated in an open position (e.g., **Figure 1**) or in a closed position (e.g., **Figure 2**). For example, **Figure 3** shows an embodiment in which bristles 18 of first brush head 12 and bristles 20 of second brush head 14 are offset from each other when hair brush 10 is in the closed position.

[0021] Beyond the bristles and guide pins, hair brush 10 has other structural aspects that yield advantages when styling hair. For example, one or both brush heads may have ceramic material disposed on a surface thereof. In the embodiment shown, the ceramic material substantially covers the entire perimeter of each brush head. However, the ceramic material need not cover the entire perimeter of the brush head in other embodiments.

[0022] In **Figure 1**, first brush head 12 has ceramic coating 24 (e.g., over a metal base) that can evenly distribute heat from, for example, a blow dryer used in conjunction with hair brush 10. Besides distributing heat evenly, ceramic coating 24 helps to retain heat for a longer period of time while styling hair.

[0023] In addition, one or both of the brush heads may have an external surface with a shape that is conducive to styling hair. For example, first brush head 12 and second brush head 14 have a rounded portion on a side of the brush head that is opposite from the side with the bristles. **Figure 4** shows a cross-sectional view of first brush head 12 of **Figure 1**, including the rounded portion that can

facilitate styling. However, other suitable shapes may be used. Regardless of the particular shape chosen for each brush head, the shape should improve the ability to curl hair.

[0024] In use, hair brush 10 may be used to style (e.g., straighten and/or curl) a lock of hair. For example, a user would grip the lock of hair to be styled with hair brush 10 by placing the lock of hair within the bristles of one or both of the brush heads of hair brush 10. Based on the desired hair style, the user would proceed to either straighten or curl the lock of hair with hair brush 10.

[0025] The styling may be accompanied by the use of other hair styling devices (e.g., blow dryer, crimping iron, etc.) or products (e.g., hair spray, mousse, styling gel, etc.). Moreover, as mentioned above, if the hair brush includes ionized guide pins, free radicals tend to be removed and/or inactivated from the hair during styling.

[0026] It is to be understood that even though numerous characteristics and advantages of various embodiments have been set forth in the foregoing description, together with details of structure and function of the various embodiments, this disclosure is illustrative only. Changes may be made in detail, especially matters of structure and management of parts, without departing from the scope of the various embodiments as expressed by the broad general meaning of the terms of the appended claims.